

NAO 202-735D: Scientific Integrity

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NOAA Research Council: Scientific Integrity commons:
<http://nrc.noaa.gov/ScientificIntegrityCommons.aspx>

NOAA Administrative Order (NAO) 202-735D: Scientific Integrity

NOAA FORM 58-5 (4-04)

	National Oceanic and Atmospheric Administration	NOAA Administrative Order 202-735D	
	NOAA ADMINISTRATIVE ORDER SERIES	DATE OF ISSUANCE December 7, 2011	EFFECTIVE DATE December 7, 2011
	SUBJECT: SCIENTIFIC INTEGRITY		

- [View the Procedural Handbook \(774Kb\)](#)
- [FRC Guidance Nov 8 2016](#)

SECTION 1. PURPOSES.

- .01 To promote a continuing culture of scientific excellence and integrity, and to establish a policy on the integrity of scientific activities that the agency conducts and uses to inform management and policy decisions. In addition, the intent of the policy is to strengthen widespread confidence - from scientists, to decision-makers, to the general public - in the quality, validity, and reliability of NOAA science and to denote the agency's commitment to a culture of support for excellence of NOAA's principal science asset, its employees.

Achieving these purposes requires commitment from scientists, their managers, and those who use scientific results to set policy. Therefore, this Order also establishes reciprocal responsibilities among all three groups through a Code of Scientific Conduct and Code of Ethics for Science Supervision and Management for NOAA employees and contractors who conduct, supervise, assess, or interpret scientific information for the use of NOAA, the Department of Commerce, and the Nation.

- .02 The Procedural Handbook to this Order establishes processes for responding to allegations of misconduct. The Procedural Handbook has the full force and authority of this NOAA Administrative Order (NAO).
- .03 Future guidance and resources related to scientific integrity and the implementation of this NAO will be made available to staff and the public on the Scientific Integrity Commons website at <http://nrc.noaa.gov/scientificintegrity.html>.

SECTION 2. SCOPE.

- .01 To achieve its purposes, this Order will:

- Establish NOAA's Principles of Scientific Integrity and the general NOAA Policy on Integrity of Scientific Activities.
- Define the reciprocal responsibilities among scientists, their managers and supervisors, and policy makers by establishing a Code of Scientific Conduct and a Code of Ethics for Science Supervision and Management.
- Provide for compliance training and maintenance of a NOAA Scientific Integrity Commons website for its employees.
- Set procedures for resolving allegations of misconduct and consequences for misfeasance by adopting an associated Procedural Handbook.

.02 This Order applies to:

- a. All NOAA employees, political and career, who are engaged in, supervise, or manage scientific activities, analyze and/or publicly communicate information resulting from scientific activities, or use scientific information or analyses in making bureau or office policy, management, or regulatory decisions; and
- b. All contractors who engage in or assist with activities identified above.

.03 Recipients of NOAA financial assistance awards, including NOAA Cooperative Institutes, as well as other NOAA research partners and collaborators are responsible for abiding by the principles contained in this Order regarding NOAA's commitment to Scientific Integrity, as specified in award agreements or in other written agreements with NOAA.

.04 This Order is in addition to and does not alter the requirements applicable to the specific activities, topics, and persons that are explicitly covered by other applicable federal statutes, regulations, or policy directives, or by other NOAA or Department of Commerce administrative orders, such as but not limited to:

- a. Department policy for engaging in public communications, as specified in Departmental Administrative Order (DAO) 219-1, "Public Communications," as clarified on June 15, 2011 by the General Counsel of the United States Department of Commerce's Memorandum for all Bureau Chief Counsels and General Counsels.¹
- b. The Information Quality Act (Section 515 of Public Law 106-554), which may be applicable to certain information disseminated by NOAA.
- c. Testimony or information provided to Congress that is addressed by DAOs 218-1, "Legislative Activities"; 218-2, "Legislative and Intergovernmental Affairs"; and 218-3, "Reports to Congress Required by Law"; NOAA Administrative Order 218-1, "The Preparation and Clearance of Congressional Testimony"; and any other requirement that information presented to Congress must be scientifically accurate.²
- d. Rulemakings, adjudications, or publications in the Federal Register.
- e. Requirements for authorizing the production, printing, and distribution of publications and audiovisuals that are addressed by DAO 219-4.
- f. Department regulations and policies pertaining to financial assistance awards, as specified in 15 C.F.R. Parts 14 and 24 (as applicable); the Department of Commerce Financial Assistance

Standard Terms and Conditions (March 2008); and DAO 203-26, "Department of Commerce Grants Administration," as supplemented by the Department's Grants Manual, any or all of which may be periodically updated.

- .05 This Order shall not be interpreted to conflict with the rights of an employee under the law, including:
- The Federal Service Labor-Management Relations Statute (5 U.S.C. §§ 7101-7135);
 - Department Administrative Order (DAO) 202-711, "Labor-Management Relations";
 - Various collective bargaining agreements;
 - Those provisions of Chapter 75 of Title 5 of United States Code relating to disciplinary action of employees; and
 - The Whistleblower Protection Act of 1989 (5 U.S.C. § 1213).

Additionally, this Order shall not be interpreted to conflict with any rights accorded a union representative under the Federal Service Labor-Management Relations Act when communicating as a union representative.

SECTION 3. DEFINITIONS.

Allegation

Any written or oral statement or other indication of possible scientific misconduct made to a NOAA employee or contractor, or to an employee of a NOAA research partner.

Bias (Research Bias)

Research bias, also called experimenter bias, is a process where the scientist(s) performing the research influence the results in order to produce a certain outcome.³

Conflict of Interest

Any financial or non-financial interest which conflicts with the actions or judgments of an individual when conducting scientific activities because it:

1. Could impair the individual's objectivity;
2. Could create an unfair competitive advantage for any person or organization; or
3. Could create the appearance of either item listed above.

Decision-Makers

Employees who may:

- Develop policies or make determinations about policy or management;
- Make determinations about expenditures of Department of Commerce or NOAA funds;
- Implement or manage activities that involve, or rely on, scientific activities; or
- Supervise employees who engage in scientific activities.

Fabrication

Making up data or scientific results and recording or reporting them for the purposes of deception.⁴

Falsification

Manipulating research materials, equipment, processes, or changing or omitting data or results such that the research is not accurately represented in the research record.⁵

Financial Interest

Any matter affecting a personal financial interest or a financial interest imputed to the individual (including, but not limited to, the individual's spouse and any entity for which the individual serves in a personal capacity as an officer or board member, such as due to fiduciary duties to the organization under state law).⁶

Fundamental Research Communication

The complete definition of "Fundamental Research Communication" is found in DAO 219-1, available at http://www.osec.doc.gov/opog/dmp/daos/dao219_1.html.

A brief definition is: Public communication prepared as part of the employee's official work regarding the products of basic or applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community. Matters of policy, budget, or management are not considered Fundamental Research Communications.

Non-Financial Conflict of Interest

Individual participation in a matter where one of the parties has, or is represented by someone with whom the individual has, a covered relationship (including, but not limited to, a spouse's employer and any entity for which the individual is actively involved in a personal capacity).⁷

Plagiarism

The appropriation of another person's ideas, processes, results, or words without giving appropriate credit.⁸

Research

Research is systematic study directed toward fuller scientific knowledge or understanding of the subject studied.⁹

Basic research is defined as systematic study directed toward fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind.

Applied research is defined as systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.

Science

Science at NOAA is the systematic study of the structure and behavior of the ocean, coasts, Great Lakes, atmosphere, and their related ecosystems, including people; and the integration of research, analysis,

observations, monitoring, and environmental modeling, or subsets of those and related fields of study. NOAA science includes discoveries and ever new understanding of the oceans and atmosphere and their intimate relationship to humans and the application of this understanding to such issues as the causes and consequences of climate change, the physical dynamics of high-impact weather events, the dynamics of complex ecosystems and biodiversity, and the ability to model and forecast the future states of natural and human systems.

Science provides the fundamental basis of the service and stewardship elements of NOAA's mission.¹⁰

Scientific Activities

Activities that involve inventorying, monitoring, observations, experimentation, study, research, integration, modeling, and scientific assessment.

Scientific activities are conducted in a manner specified by standard protocols and procedures and include any of the physical, biological, or social sciences, as well as engineering and mathematics, or any combination of these.

Scientific Assessment

Evaluation of a body of scientific or technical knowledge that typically synthesizes multiple factual inputs, data, models, and assumptions, and implies the use of best professional judgment to bridge uncertainties in the available information.

Scientific Integrity

The condition resulting from adherence to professional values and practices when conducting and applying the results of science that ensures objectivity, clarity, and reproducibility, and that provides insulation from bias, fabrication, falsification, plagiarism, interference, censorship, and inadequate procedural and information security.

Scientific Product

Presentation of the results of scientific activities including the analysis, synthesis, compilation, or translation of scientific information and data into formats for the use of NOAA, the Department of Commerce, or the Nation.

Traceability

The ability to discover by going backward over the evidence step by step.

Transparent (Transparency)

Characterized by visibility or accessibility of information (the quality or state of being transparent).

SECTION 4. NOAA PRINCIPLES OF SCIENTIFIC INTEGRITY.

- .01 NOAA is an organization based upon science, scientific research, and providing and using scientific advice for decision-making. NOAA recognizes a clear distinction between the scientific process and the policy decisions made based on the results of science. NOAA's ability to achieve its strategic

vision of "healthy ecosystems, communities, and economies that are resilient in the face of change" relies on transparency, traceability, and scientific integrity at all levels. Transparency, traceability, and integrity are, therefore, core values of our organization and the reason for issuing this Order. The principles described in the paragraphs below constitute NOAA policy.

- .02 NOAA scientists are expected to be cognizant of and understand the statutes and any other mandates that guide their work.
- .03 NOAA scientists are encouraged to publish data and findings in ways that contribute to the effective transparency and dissemination of NOAA science and that enhance NOAA's reputation for reliable science, including online in open formats and through peer-reviewed, professional, or scholarly journals. Development and dissemination of scientific and technical products must be consistent with NOAA policies and procedures related to peer review, the Open Government Directive (Office of Management and Budget, 2009b), NOAA's information quality guidelines,¹¹ and other legislative and policy mandates.
- .04 In response to media interview requests to the Agency about the scientific and technological dimensions of NOAA's work, NOAA will offer knowledgeable spokespersons who can, in an objective, nonpartisan and articulate fashion, describe and explain these dimensions to the media and the American people.
- .05 To be open and transparent about their work, and consistent with DAO 219-1 on (Public Communications) and their official duties, NOAA scientists may freely speak to the media and the public about scientific and technical matters based on their official work, including scientific and technical ideas, approaches, findings, and conclusions based on their official work. Additional guidance for employees is available in DAO 219-1.¹² Communication by email or other electronic means in response to inquiries from the media, and concerning scientific or technical matters based on an employee's official work, are considered to be the same as oral communication and not subject to approval, but are still subject to the restrictions on protected non-public information set forth in DAO 219-1. Social media communications are governed by the Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0,¹³ as well as DAO 219-1.¹⁴
- .06 NOAA scientists are free to present viewpoints, for example about policy or management matters, that extend beyond their scientific findings to incorporate their expert or personal opinions, but in doing so they must make clear that they are presenting their individual opinions- not the views of the Department of Commerce or NOAA. In such cases, NOAA personnel may also note their NOAA affiliation as part of their biographical information, provided that their NOAA affiliation is noted as one of several biographical details, or, if the information is being published in a scientific or technical journal, their NOAA affiliation may be listed with an appropriate disclaimer. Appropriate disclaimers for use by NOAA scientists when expressing such opinions will be posted to the Scientific Integrity Commons website.

- .07 NOAA recognizes that scientific leadership is critical to advance its mission and the professional development and stature of its scientists and engineers and therefore encourages and supports its researchers to become scientific leaders. NOAA also encourages its scientists, consistent with Federal ethics laws and regulations, to engage with their peers in academic, industry, governmental, and non-governmental organizations by:
- presenting their work at scientific meetings,
 - publishing their work in appropriate outlets,
 - serving on editorial boards and on scientific and technological expert review panels, and
 - actively participating in professional societies and national/international scientific advisory and science assessment bodies.
- .08 NOAA supports the election or appointment of its scientists and engineers to fellowships or positions in professional organizations, including as officers and on governing boards, subject to applicable ethics requirements and Department of Commerce policy. According to Department of Commerce policy, NOAA employees may generally serve in their personal capacity as officers and on governing boards of outside organizations or in their official capacity as a government liaison. Service in an official capacity on a governing board or as an officer of an outside organization is subject to restrictions under ethics laws;¹⁵ employees should consult an ethics official before accepting an appointment on behalf of NOAA to such a position.
- .09 NOAA supports recognizing the outstanding science conducted by its employees and authorizes its scientists to accrue the professional benefits of any honors and awards for their research and discoveries, subject to applicable law, with the goal of minimizing, to the extent practicable, disparities in the potential for private-sector and public-sector scientists and engineers to accrue the professional benefits of such honors or awards.
- .10 To establish a culture of transparency, integrity, and ethical behavior among its employees NOAA will use a combination of policy, opportunities for training, and open communications, both internally and with the public. NOAA commits to:
- provide regular integrity and ethics training to its employees and contractors,
 - provide new covered employees with training within one year of beginning employment, and
 - provide information to ensure that employees and contractors are fully aware of their rights regarding publication of their research, communication with the media and the public, participation in professional scientific societies, and their responsibility to report waste, fraud, and abuse.

SECTION 5. NOAA POLICY ON INTEGRITY OF SCIENTIFIC ACTIVITIES.

- .01 All staff identified in Section 2.02 must uphold the fundamental Principles of Scientific Integrity, the Code of Scientific Conduct, and the Code of Ethics for Science Supervision and Management outlined in this Order.

- .02 NOAA recognizes the importance of scientific activity and the information it produces to maintain and enhance its effectiveness and to establish credibility and value with the public, both nationally and internationally. NOAA will preserve the integrity of the scientific activities it conducts, and activities that are conducted on its behalf. It will not tolerate loss of integrity in the performance of scientific activities or in the application of science in decision-making. To that end, NOAA will:
- a. Ensure the free flow of scientific information online and in other formats, consistent with privacy and classification standards, and in keeping with the Department of Commerce and NOAA data sharing and management policies. Where appropriate, this information will include data and models underlying regulatory proposals and other policy decisions.
 - b. Document the scientific findings considered in decision-making and ensure public access to that information and supporting data through established Department of Commerce and NOAA procedures--except for information and data that are restricted from disclosure under procedures established in accordance with statutes, regulations, Executive Orders, Presidential Memorandums, or other legal authorities.
 - c. Ensure that the selection and retention of employees in scientific positions or in positions that rely on the results of scientific activities are based on the candidate's integrity, knowledge, credentials, and experience relevant to the responsibility of the position.
 - d. Ensure that NOAA and Department of Commerce public communications guidances provide procedures by which scientists may speak to the media and the public about scientific and technical matters based on their official work and areas of expertise. In no circumstance may any NOAA official ask or direct Federal scientists or other NOAA employees to suppress or alter scientific findings.
 - e. Ensure that data and research used to support policy decisions undergo independent peer review by qualified experts, where feasible, appropriate, and consistent with the law and NOAA's Information Quality and Peer Review Guidelines. In cases where a full external peer review is appropriate but not possible (e.g., emergencies where lives and property are at risk), NOAA staff may use modified peer review processes as necessary for timely decision-making and release of data and information. In these cases, NOAA will explicitly state that the information has not been peer reviewed.
 - f. Provide information to employees on, and abide by existing, whistleblower protections.
 - g. Communicate scientific and technological findings by including a clear explication of underlying assumptions; accurate context of uncertainties; and a description of the probabilities associated with both optimistic and pessimistic projections, including best-case and worst-case scenarios, except in extraordinary or emergency situations.
 - h. Communicate policies for ensuring scientific integrity and responsibilities to employees, contractors and recipients of NOAA financial assistance awards who assist with developing or applying the results of scientific activities, as appropriate.
 - i. Enhance scientific integrity through appropriate cooperative engagement with the communities represented by professional societies and organizations.

- j. Examine, track, resolve, and report all reasonable allegations of misconduct while seeking to ensure the rights and privacy of those covered by this policy and ensuring that unwarranted allegations do not result in slander, libel, or other damage to them.
 - k. Ensure the sharing of best administrative and management practices that promote the integrity of NOAA's scientific activities.
- .03 Recipients of NOAA financial assistance awards: As provided in Section M.IO of the Department of Commerce Financial Assistance Standard Terms and Conditions¹⁶ and supplemental award terms, as applicable, recipient organizations have the primary responsibility for:
- Promptly investigating allegations of scientific or research misconduct under a NOAA award;
 - Promptly notifying the NOAA Grants Officer of allegations of scientific or research misconduct; and
 - Reporting the results of its investigation for appropriate disposition.
- NOAA recipients are also required to follow all Codes of Conduct as stated in Section J of the Department of Commerce Financial Assistance Standard Terms and Conditions. NOAA Cooperative and Joint Institutes are further subject to the rules and guidelines stated in the NOAA Cooperative Institute Handbook.¹⁷ In cases of joint or collaborative Federal funding, NOAA and the other Federal agencies funding the award(s) may, as agreed upon, jointly investigate any allegations of scientific or research misconduct.
- .04 NOAA protects those who uncover and report allegations of scientific and research misconduct, as well as those accused of scientific and research misconduct in the absence of a finding of misconduct, from prohibited personnel practices (as defined in 5 U.S.C. § 2302(b)).

SECTION 6. CODE OF SCIENTIFIC CONDUCT.¹⁸

- .01 All NOAA employees and contractors identified in Section 2.02 and all NOAA financial assistance award recipients and other NOAA research partners and collaborators identified in Section 2.03 will, to the best of their ability, be:
- a. **Honest** in all aspects of scientific effort and:
 - Clearly differentiate between facts, personal opinions, assumptions, hypotheses, and professional judgment in reporting the results of scientific activities and characterizing associated uncertainties in using those results for decision-making, and in representing those results to other scientists, decision-makers, and the public.
 - Preserve the integrity of the data record through adherence to NOAA data management standards and not fabricating or deleting raw data.
 - Approach all scientific activities objectively and completely, and accurately report results in a timely manner without allegiance to individuals, organizations, or ideology.
 - Disclose any apparent, potential, or actual financial conflicts of interest or non-financial conflicts of interest of their own and others.
 - Objectively consider conflicting data and/or studies.

- Acknowledge in publications the names and roles of those who made significant contributions to the research, including writers, funders, sponsors, and others who do not meet authorship criteria.
- b. **Accountable** in the conduct of research and interpretation of research results and:
- Use resources entrusted to them responsibly, including equipment, funds, and employees' time.
 - Disclose all research methods used, available data, and final reports and publications consistent with applicable scientific standards, laws, and policy.
 - Provide scientific advice to NOAA as requested to inform management and other decision-making.
- c. **Professional, courteous, and fair** in working with others and respectful of the ideas of others and:
- Neither unfairly hinder the scientific activities of others nor engage in dishonesty, fraud, deceit, misrepresentation, coercive manipulation, or other scientific or research misconduct.
 - Provide constructive, objective, and frank evaluation to others on their scientific activities as appropriate for standards of respectful peer review, and accept constructive critique from others.
 - Contribute to open and respectful scientific discourse that adheres to scientific standards for reporting results and conclusions and respects the intellectual property rights of others, including acknowledging and crediting prior work.
- d. **Good stewards** of research on behalf of others and:
- Diligently create, use, preserve, document, and maintain collections and data.
 - Adhere to established quality assurance and quality control programs, follow Department of Commerce records retention policies, and comply with Federal law and agreements related to use, security, and release of confidential and proprietary data.
 - Adhere to the laws and policies related to protection of human research subjects, natural and cultural resources, and research animals while conducting scientific activities.
 - Respect, to the fullest extent permitted by law, confidential and proprietary information provided by communities, such as Native American tribes or tribal organizations, and individuals whose interests are studied or affected by scientific activities or the resulting information.
 - Immediately report any observed, suspected, or apparent Scientific and Research Misconduct through means established in Section 8 and the Procedural Handbook for this Order.

SECTION 7. CODE OF ETHICS FOR SCIENCE SUPERVISION AND MANAGEMENT.

- . 01 NOAA science managers and supervisors identified in Section 2.02 will adhere to the guidelines for Scientific Integrity established in the March 9, 2009, Presidential Memo to Heads of the Executive Departments and Agencies and this Order. Specifically, science managers and supervisors will ensure:

- The selection, promotion, and retention of candidates for science and technology positions in NOAA are based on the candidate's integrity, knowledge, credentials, accomplishments, and experience relevant to the responsibility of the position.
- Appropriate rules and procedures are in place and implemented to preserve the integrity of the scientific process and the dissemination of its scientific products and information, including providing scientists the right to review and correct any official document (such as a press release or report) that cites or references their scientific work, to ensure that accuracy has been maintained after the clearance and editing process.
- The establishment and use of Federal Advisory Committees (FACs) will follow procedures established by the Federal Advisory Committee Act and be in accordance with the guidelines established in the Office of Science and Technology Policy memorandum on Scientific Integrity of December 17, 2010. As specified in the memorandum, NOAA will:
 - Ensure that the recruitment process for new FAC members is transparent by announcing FAC member vacancies widely with an invitation for the public to recommend individuals for consideration;
 - Make widely available to the public the professional biographical information (including current and past professional affiliations and a clear illustration of their qualifications for serving on the committee) for appointed committee members, subject to legal considerations;
 - Ensure that the selection of members to serve on a scientific or technical FAC is based on expertise, knowledge, and contribution to the relevant subject area, as well as the availability and ability to serve, and obtains a representative diversity of viewpoints among the committee members;
 - Make all conflict-of-interest waivers granted to committee members publicly available, except where prohibited by law; and
 - Except where explicitly stated in a prior agreement, all reports, recommendations, and products produced by the FAC will be treated as solely the findings of such committees rather than of the U.S. Government, and thus are not subject to intra- or inter-agency revision.
- When scientific or technological information is considered in policy decisions, the information will be subject to well-established scientific processes, including peer review where appropriate, and policy decisions will appropriately and accurately reflect the best available science in compliance with relevant statutory standards.
- Except for information that is properly restricted from disclosure under procedures established in accordance with a statute, regulation, patent, trademark, Executive Order, Presidential Memorandum, or other legal authority, the scientific or technological findings, conclusions, and methodologies considered or relied on in policy decisions will be made available to the public in a timely manner.
- Procedures are in place to identify and address instances in which the scientific process or the integrity of scientific and technological information may be compromised.

- Additional procedures are adopted as are necessary to ensure the integrity of scientific and technological information and processes on which the agency relies in its decision making or otherwise uses or prepares.
- The intellectual property rights of others are respected.

.02 All individuals identified in Section 2.02 of this Order must not:

- Suppress, alter, or otherwise impede the timely release of scientific or technological findings or conclusions, unless explicitly required by a Department or government-wide statute, regulation, Executive Order, Presidential Memorandum, or other legal authority.
- Intimidate or coerce employees, contractors, recipients of financial assistance awards, or others to alter or censor scientific findings.
- Implement institutional barriers to cooperation and the timely communication of scientific findings or technology.

Any such interference will be considered a violation of this section: NOAA's Code of Ethics for Science Supervision and Management.

.03 Decisions to approve or not approve a Fundamental Research Communication must be based only on whether the work is scientifically meritorious: specifically, whether the methods used are clear and appropriate; the presentation of results and conclusions is impartial; and there are no apparent, actual, or potential conflicts of interest. Consistent with DAO 219-1, the approval or non-approval of a Fundamental Research Communication cannot be based on the policy, budget, or management implications of the research. Differences of opinion will be resolved by through the NOAA-wide framework for review and approval of Fundamental Research Communications consistent with DAO 219-1.

.04 The NOAA Research Council will develop a NOAA-wide framework for peer review and approval of Fundamental Research Communications consistent with the criteria in 7.03. Each Line Office will develop and document procedures for review and approval consistent with the Research Council's framework. The procedures must include time limits for review and approval, and procedures for redress if the time limits are not met. The framework and procedures will be posted on the Scientific Integrity Commons website.

.05 NOAA science managers and supervisors will immediately report suspected cases of scientific or research misconduct through means established under Section 8 and the Procedural Handbook for this Order.

SECTION 8. SCIENTIFIC AND RESEARCH MISCONDUCT AND RESPONDING TO ALLEGATIONS.

.01 Scientific and Research Misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, or in the products or reporting of these activities. Scientific and Research Misconduct specifically includes:

- intentional circumvention of the integrity of the science and research process by violation of NOAA's Code of Ethics for Science Supervision and Management; and
 - actions that compromise the scientific process by violating NOAA's Code of Scientific Conduct.
 - Scientific and Research Misconduct does not include honest error or differences of opinion..
- .02 Procedures for lodging and responding to allegations of misconduct are provided in the Procedural Handbook to this Order.

SECTION 9. AUTHORITIES.

- .01 Statutes, Regulations, and Policies
- a. Authority to issue Departmental Regulations, 5 U.S.C. § 301, which allows the head of an executive department to prescribe regulations for the conduct of its employees.
 - b. Standards of Ethical Conduct for Employees of the Executive Branch, 5 C.F.R. § 2635, and Conflict of Interest, 18 U.S.C. § 208, and related rulings by the U.S. Office of Government Ethics.
 - c. Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260 (Dec. 6, 2000), available at http://nrc.noaa.gov/plans_docs/fed_research_misconduct_dec_2000.pdf
 - d. Presidential Memo to Heads of the Executive Departments and Agencies (March 9, 2009), available at <http://www.whitehouse.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf>
 - e. Office of Science and Technology Policy Memorandum on Scientific Integrity (Dec., 17, 2010), available at <http://www.whitehouse.gov/sites/default/files/microsites/ostp/scientific-integritymemo-12172010.pdf>

SECTION 10. COMMUNICATION, OVERSIGHT, REVIEW, AND REPORTING.

- .01 The NOAA Research Council, or its designee, will be responsible for the communication and oversight of this policy, as well as for periodic review and revisions of the policy.
- .02 The NOAA Research Council will communicate these policies and procedures both internally to NOAA employees and contractors, and to NOAA partners, recipients of financial assistance awards, and others involved in external research.
- .03 The NOAA Research Council will maintain the Scientific Integrity Commons website at <http://nrc.noaa.gov/scientificintegrity.html>, where it will post a general statement of the NOAA Scientific Integrity Policy. The Council will also ensure that the policy is referenced, as appropriate, in financial assistance award solicitations, requests for proposals and in the terms and conditions of resulting financial assistance awards and contracts, and communicated to individuals either involved in peer review panels evaluating proposals to NOAA grants programs and cooperative agreements or evaluating internal NOAA scientific programs and activities.
- .04 NOAA's Chief Scientist, in consultation with the Deputy Under Secretary for Operations (DUS/O), will provide annual public reporting, through a NOAA website, of the aggregate number of misconduct cases, the areas of concern (e.g., climate science, fisheries management, financial, contracting, etc.), the affiliation of the individuals involved (i.e., federal employees, contractors, partners, and

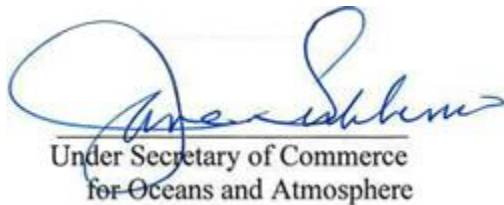
recipients of financial assistance awards), how many accusations were investigated, and the number of findings of misconduct. If the position of Chief Scientist is vacant, the Under Secretary will assign this responsibility to another high-level official with scientific expertise within NOAA.

- .05 The NOAA Research Council will review the policy at least every two years to ensure that it is current and effective in relation to its purpose as stated in Section 1.

SECTION 11. EFFECT ON OTHER ISSUANCES.

This document supersedes NAO 202-7350, "Scientific Misconduct" effective November 7 1990.

An electronic copy of this Order will be posted in place of the superseded Order on the NOAA Office of the Chief Administrative Officer website under the NOAA Administrative Issuances Section at <http://www.corporateservices.noaa.gov/ocao>.



Under Secretary of Commerce
for Oceans and Atmosphere

Office of Primary Interest:
Office of the Under Secretary
NOAA Office of General Counsel (GC)
U.S. Department of Commerce Office of General Counsel

Footnotes

¹ The Departmental Administrative Order (DAO) 219-1, "Public Communications," does not apply to employees in bargaining units represented by the National Weather Service Employees Organization.

² Dr. John P. Holdren's Memorandum for the Heads of Executive Departments and Agencies on Scientific Integrity, issued on December 17, 2010, states: "In addition, the Director of the Office of Management and Budget (OMB) will be issuing guidance to OMB staff concerning the review of draft executive branch testimony on scientific issues prepared for presentation to the Congress. That guidance will provide standards that are to be applied during the review of scientific testimony."

³ See Martyn Shuttleworth, Research Bias, EXPERIMENT RESOURCES (2009), <http://www.experiment-resources.com/research-bias.html>.

⁴ See Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260, 76,262 (Dec. 6, 2000).

⁵ See Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260, 76,262 (Dec. 6, 2000).

⁶ See 18 U.S.C. § 208. This definition will be applied consistent with any rule issued by U.S. Office of Government Ethics permitting the appointment of Federal employees to serve in their official capacities

on the boards of directors and as officers of nonprofit organizations, including scientific organizations professional societies, and similar bodies that are actively involved in matters under the jurisdiction of the Department. See 76 Fed. Reg. 24816 (May 3, 2011).

⁷ See 5 C.F.R. § 2635.502(b).

⁸ See Federal Policy on Research Misconduct, 65 Fed. Reg. 76,260, 76,262 (Dec. 6, 2000).

⁹ See National Science Foundation Survey of Federal Funds for Research and Development, <http://www.nsf.gov/statistics/randdef/fedgov.cfm#gs>.

¹⁰ Adapted from NOAA's Next Generation Strategic Plan, p. 3 (Dec. 2010), http://www.ppi.noaa.gov/wp-content/uploads/NOAA_NGSP.pdf

¹¹ NOAA Information Quality and Peer Review Guidelines are available on the NOAA website at http://www.cio.noaa.gov/Policy_Programs/info_quality.html. Additional peer review guidance will be made available to employees through the NOAA Scientific Integrity Commons website.

¹² DAO 219-1, "Public Communications" (April 30, 2008), http://www.osec.doc.gov/opog/dmp/daos/dao219_1.html.

¹³ Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0 (Oct. 21, 2010), <http://www.osec.doc.gov/webresources/socialmedia>.

¹⁴ The Departmental Administrative Order (DAO) 219-1, "Public Communications," and Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0 do not apply to employees in bargaining units represented by the National Weather Service Employees Organization.

¹⁵ The U.S. Office of Government Ethics has published a proposed rule that would create a government-wide exemption to 18 U.S.C. 208. See 76 Fed. Reg. 24816 (May 3 2011). The exemption would permit the appointment of Federal employees to serve on the boards of directors and as officers of nonprofit organizations, including scientific organizations, professional societies, and similar bodies that are actively involved in matters under the jurisdiction of the Department. DOC and NOAA support this proposed rule.

¹⁶ Department of Commerce Financial Assistance Standard Terms and Conditions (March 2008), http://www.fpir.noaa.gov/Library/OMI/Grants/PresentPolicy/DOC_ST&C05.pdf.

¹⁷ NOAA Cooperative Institute Handbook (Dec. 2005), <http://www.nrc.noaa.gov/ci/policy/docs/handbook.pdf>.

¹⁸ NOAA supports the Principles of Integrity set forth in the Singapore Statement developed in September 2010. We have directly adopted the Singapore Statement Principles as the categories for our Code of Scientific Conduct. Similarly, the responsibilities outlined in the Singapore Statement have also greatly helped inform our work on this document. For more information on the Singapore Statement and the World Conference on Research Integrity, please see <http://www.singaporestatement.org>.

PROCEDURAL HANDBOOK

for NOAA Administrative Order (NAO) 202-735D:

Scientific Integrity

Issued: 12/07/2011; Effective 12/07/2011; Amended 05/11/2012

Preface.

This Procedural Handbook provides the procedures to be followed in responding to allegations of Scientific and Research Misconduct by NOAA employees. It also addresses procedures to be followed in responding to allegations of Scientific and Research Misconduct pertaining to NOAA contracts and to external organizations and persons receiving NOAA financial assistance for scientific or research activities. This Procedural Handbook should be read in conjunction with NAO 202-735D on Scientific Integrity Policy. All terms not otherwise defined in this Procedural Handbook shall have the meanings ascribed to them in NAO 202-735D.

Section 1. Scientific and Research Misconduct.

- .01 A finding of Scientific and Research Misconduct requires a determination by the Determining Official by a preponderance of the evidence on the record before him or her that the person or entity has:
 - a. Significantly departed from the Code of Scientific Conduct or Code of Ethics for Science Supervision and Management set forth in NAO 202-735D; and
 - b. Engaged in the misconduct intentionally, knowingly, or in reckless disregard of the Code of Scientific Conduct or Code of Ethics for science supervision and management in NAO 202-735D
- .02 Scientific and Research Misconduct does not include honest error or differences of opinion.

Section 2. Definitions.

Determining Official (DO) is the institutional official who makes final determinations on allegations of Scientific and Research Misconduct and proposes institutional administrative actions. The Determining Official is designated for a specific inquiry. The Determining Official will be at the level of Deputy Assistant Administrator or above and will not be the same individual as the Integrity Panel Review Chair. The DO should have no direct prior involvement in the institution's inquiry and investigation of an allegation and should not be in the Line Office chain of command for either the person making the allegation or the person alleged to be in violation. A DO's involvement in the preliminary assessment of an allegation, appointment of an individual to assess allegations of Scientific and Research Misconduct, or service on an inquiry or investigation committee is not considered to be direct prior involvement.

Integrity Review Panel Chair (IRPC) is the institutional official responsible for overseeing the inquiries and investigations, chairing the review panel, and carrying out other responsibilities specified in this Procedural Handbook. The Integrity Review Panel Chair is designated for a specific inquiry.

Section 3. Allegations of Scientific and Research Misconduct.

- .01 NOAA has the primary responsibility for all scientific and research activities conducted by its employees using agency resources. NOAA also has certain oversight and monitoring responsibilities pertaining to the implementation and administration of NOAA contracts and financial assistance awards for scientific and research activities.
- .02 Allegations of Scientific and Research Misconduct with respect to NOAA employees, contractors, and NOAA-funded research must be submitted within 60 calendar days, or as quickly as possible in the case of external organizations, of the discovery of the alleged misconduct. Allegations must be submitted in writing to the Office of the Deputy Under Secretary for Operations (DUS/O) at 14th & Constitution Avenue, NW, Washington, DC 20230, or electronically to research.misconduct@noaa.gov. Allegations may be submitted by individuals or entities, internal or external to NOAA, and must bear the name of the individual or entity making the allegations. Complainants who wish to remain anonymous should recognize that any inquiry and action on an anonymous allegation may be very limited.
- .03 The Deputy Under Secretary for Operations (DUS/O) is responsible for overseeing the agency's process for responding to allegations of Scientific and Research Misconduct. Within 30 calendar days of receiving an allegation, the DUS/O will: assess the allegation of Scientific and Research Misconduct to determine if it falls within the definition of Scientific and Research Misconduct in Section 8 of NAO 202-735D and warrants an inquiry on the basis that the allegation is sufficiently credible and specific so that potential evidence of Scientific and Research Misconduct may be identified. If an inquiry is warranted, the DUS/O will appoint an Integrity Panel Review Chair and a Determining Official within 60 calendar days of receiving the allegation. These appointments will be commensurate with the scope of the allegation. The review panel chair must meet the criteria for being a panel member set out in Section 5.01. The DUS/O may retain or delegate Determining Official authority.
- .04 When appointing the review panel chair and DO, the DUS/O will determine whether the apparent scale of the allegation rises to a level that warrants appointing IRPC and DO from Line Offices independent of the most affected Line Office.
- .05 If the allegations relate to NOAA employees, the review panel chair will follow the procedures provided in Section 5.
- .06 For allegations of Scientific and Research Misconduct under contracts or financial assistance, the DUS/O will direct the Director of Acquisition and Grants to address the allegation in coordination with the Line Office with the most significant interest in a matter. The Director of Acquisition and Grants, or his or her designee, will follow the procedures provided in each contract or financial assistance award and will report promptly to the DUS/O on steps taken and outcomes. The DUS/O will determine which Line Office or external organization has the most significant interest in a matter.

- .07 The NOAA General Counsel, the Director of the NOAA Office of Workforce Management (WFMO), and the Department of Commerce Assistant General Counsel for Administration, or their designees, will be notified of all allegations of Scientific and Research Misconduct, and will assist the DUS/O, IPRC, and DO with investigations of allegations of employee misconduct.
- .08 Any publicity or media attention about an allegation or any other step specified in this Procedural Handbook will be handled by the DUS/O with assistance from the NOAA Office of Communications and External Affairs.
- .09 Allegations that have been previously resolved will not be reopened unless substantial new information is submitted, as determined by the DUS/O.

Section 4. General Rights and Responsibilities.

- .01 The Complainant has the responsibility to make any allegation in good faith, maintain confidentiality, and cooperate with the inquiry and investigation. The Complainant has the right to be informed of the status of the investigation of their claim, and will be notified of the DUS/O's decision if an allegation warrants an inquiry and has been assigned an IPRC.
- .02 At the time of or before beginning an inquiry, the IPRC must make a good faith effort to notify the Respondent in writing, if the Respondent is known. The Respondent may have the advice of counsel or other expert adviser during any investigation, to the extent permitted by law.
- .03 No allegation of scientific or research misconduct will be used as the basis for any adverse action taken against a Respondent until those allegations are proven and a finding is issued in accordance with the NAO and these procedures.
- .04 The Integrity Review Panel Chair will:
 - a. Conduct an inquiry and investigation, if warranted, and provide consistency, oversight, and guidance throughout the entire process;
 - b. Chair and propose members of the panel that will undertake any necessary inquiry and/or investigation, ensure that panel is properly staffed and that there is expertise and capacity appropriate to carry out a thorough and authoritative investigation and evaluation of the evidence;
 - c. Maintain the confidentiality of the proceedings, and monitor the treatment of the Complainant and Respondent, and those who participate in the review process;
 - d. Report regularly to the DUS/O on the status of integrity allegations, steps taken, and recommendations made;
 - e. Sequester research data and evidence pertinent to the allegation of Scientific and Research Misconduct, and maintain it securely in accordance with this policy and applicable law and regulation;
 - f. Notify the Respondent and provide opportunities for him/her to review/respond to allegations, evidence, and panel reports in accordance with Section 5 of this Procedural Handbook;

- g. Inform the Respondents, Complainants, and witnesses of the procedural steps in the Scientific and Research Misconduct proceeding;
- h. Determine whether any person involved in handling an allegation of Scientific and Research Misconduct has an unresolved personal, professional, or financial conflict of interest, and take appropriate action, including recusal, to ensure that no person with such a conflict is involved in the Scientific and Research Misconduct proceeding;
- i. Cooperate with other agency officials to take all reasonable and practical steps to protect or restore the positions and reputations of good faith complainants, witnesses, and committee members and countering potential or actual retaliation against them by respondents or other institutional members;
- j. Keep the Determining Official and others who need to know, consistent with confidentiality concerns in Section 8 of this Procedural Handbook, apprised of the progress of the review of an allegation of Scientific and Research Misconduct.

.05 The Determining Official will:

- a) Receive the inquiry report from the IPRC and determine based on the information in the report whether an investigation is warranted;
- b) If an investigation is conducted, receive the investigation report from the IPRC and determine the extent to which NOAA accepts the findings of the investigation and, if Scientific and Research Misconduct is found, propose appropriate institutional administrative actions, if any;
- c) Ensure that the final investigation report, the findings of the DO, and a description of any pending or completed administrative actions are provided to the DUS/O.
- d) Recognize the potential for possible adverse effect on the person or entity against whom an allegation is made and thus maintain confidentiality during and after the process, to the extent permitted by law.

.06 The Deputy Under Secretary for Operations (DUS/O) will:

- a. Oversee the agency's process for responding to allegations of Scientific and Research Misconduct, and appoint officials involved in the process;
- b. Receive and initially assess allegations of Scientific and Research Misconduct with respect to NOAA employees, contractors, and NOAA-funded researchers in external institutions;
- c. Inform complainant, respondent, and any other affected parties of resources available to assist him/her/them through the process, including potential volunteer mentors;
- d. Recuse himself or herself in the case of a personal, professional, or financial conflict of interest, in which case the NOAA Administrator, or his or her designee, shall take on the responsibilities of the DUS/O to oversee the agency's process for responding to an allegation;
- e. Track and work with the NOAA Chief Scientist to annually report all allegations and dispositions of Scientific and Research Misconduct; and
- f. Recognize the potential for possible adverse affect on the person or entity against whom an allegation is made, and thus maintain confidentiality during and after the process, to the extent permitted by law.

Section 5. Review Process for Allegations of Misconduct against NOAA Employees.

.01 General – NOAA will attempt to resolve each review as quickly as possible while also guaranteeing the completion of a full and fair investigation.

- a. Once the DUS/O determines under Section 3.03 that further evaluation of an allegation is required, he or she will appoint a DO and an IRPC, who will chair the review panel. Upon appointment of an IRPC, the DUS/O will also propose to appoint a review panel consisting of members who are chosen based on their experience, availability, and mature judgment. Within 30 calendar days of appointment, the IRPC will propose at least two additional review panel members who are U.S. government employees with the appropriate expertise in the type of research in which the alleged misconduct occurred. The majority of the panel must be external to the Line Office that has the most significant interest in the matter. The IRPC will submit the proposed composition of the review panel to the DUS/O for approval.
- b. The IRPC and proposed panel members must reveal any actual or potential conflicts of interest to the DUS/O prior to their appointment. Conflicts of interest will result in the disqualification of the individual from serving on the panel. These conflicts include:
 - personal knowledge or involvement in the incidents that resulted in the allegations;
 - close personal, professional, or financial relationships with either the Complainant or Respondent; and,
 - other contact, associations, or interests that could compromise the impartiality or appearance of impartiality of the panel member.
- c. Once the panel members are approved by the DUS/O, the IRPC will notify the Complainant and Respondent of the membership. If either the Complainant or Respondent has reason to believe that a proposed panel member has a potential conflict of interest, that party may submit a written objection to the DUS/O detailing the concerns. The DUS/O will make the decision whether to replace or retain a panel member after considering these comments at his or her discretion.
- d. The review panel's response to allegations of Scientific and Research Misconduct will consist of two possible stages: inquiry and investigation.

.02 Inquiry

- a) The purpose of the inquiry phase is to assess whether a Scientific and Research Misconduct allegation has substance and to determine whether an investigation is warranted. The inquiry phase will be concluded within 60 calendar days of the panel's establishment, unless the IRPC, at his or her discretion, provides for a different time frame.
- b) The review panel may collect any evidence it deems necessary to evaluate the merits of an allegation. The review panel will assure that the Respondent has adequate opportunity to address the evidence.
- c) The Complainant and Respondent must be given an opportunity to provide written testimony to the review panel.
- d) After assessing the merits of a Scientific and Research Misconduct allegation, the review panel will:

- I. Develop a draft inquiry report on whether the allegation has sufficient grounds to merit further investigation, which must include summaries of any evidence developed in the course of the inquiry and the basis for the recommendation;
 - II. Provide the draft inquiry report to the NOAA General Counsel for legal review;
 - III. Provide the draft inquiry report to the Complainant and Respondent, who may each submit a response within 5 calendar days after receipt, to be attached with the final inquiry report;
 - IV. Develop a final inquiry report taking into consideration, as appropriate, comments from the Complainant and the Respondent, which the IRPC will transmit to the DO.
- e) The DO must make a finding in writing whether an investigation is warranted and provide it to the DUS/O and the IRPC, together with a copy of the inquiry report, within 30 days of receiving the final inquiry report from the IRPC. The inquiry is complete when the DO makes this determination. If the DO determines that no investigation is warranted, the DO will explain the basis for his or her determination in writing to the DUS/O and IRPC. Once the DO makes a determination, the IRPC will notify the Respondent whether the DO determined that an investigation was warranted, and will include in the final inquiry report a copy of NAO 202-735D, and this Procedural Handbook.

.03 Investigation

- a. The purpose of this stage is to determine whether Scientific and Research Misconduct occurred and to recommend institutional action. The investigation must begin within 30 calendar days after the determination by the DO that an investigation is warranted. Based upon information found in the inquiry phase, the review panel may broaden the scope of its inquiries beyond the initial allegations. If the panel changes the scope of the investigation, it must notify the Respondent of the new areas being examined and provide the Respondent the opportunity to comment and supply additional information regarding the conduct examined in the expanded investigation.
- b. In addition to information obtained in the inquiry phase, the review panel may collect any additional information it deems necessary to evaluate the merits of an allegation, and shall have available to it appropriate investigative capability, provided internally or from another agency.
- c. The review panel will conclude its review within 120 calendar days of the date it began the investigation phase; at the request of the panel, the IRPC may grant additional time for the panel's review.
- d. The Complainant and Respondent must be given an opportunity to provide written testimony to the review panel. The review panel may request oral testimony from either the Complainant or the Respondent.
- e. The Respondent may suggest additional avenues of investigation, witnesses, or questions, and the panel may determine at its discretion whether to pursue them.
- f. After completing its investigation, the review panel will:
 - I. Develop a draft investigation report with a recommended finding as to whether Scientific and Research Misconduct occurred. If the panel recommends that Scientific and Research Misconduct has occurred, the panel will include in its report an assessment as to the

seriousness of the misconduct and, if possible, a recommended determination as to whether misconduct was isolated or part of a pattern. The report will contain a summary of all relevant evidence and the basis for the recommendations.

- II. Provide the draft investigation report to the NOAA General Counsel for legal review;
 - III. Provide the draft investigation report to the Complainant and Respondent, who may each submit a response within 10 calendar days after receipt, to be attached with the final investigation report;
 - IV. Develop a final investigation report taking into consideration, as appropriate, comments from the Complainant and the Respondent, which the IPRC will transmit to the DO.
- g) The DO will determine in writing within 30 calendar days of receipt of the final investigation report whether NOAA accepts the investigation report, its findings, and the recommended actions; whether it declines to accept the report, findings, and recommendations, or whether it accepts with modification the report, findings, and recommendations. The DO will also specify the appropriate agency actions in response to accepted findings of Scientific or Research Misconduct. If the DO's findings or determinations vary from the findings of the investigative panel, the DO will, as part of his/her written determination, explain in detail the basis for rendering a decision different from the findings of the investigative panel. Alternatively, the DO may return the report to the investigative panel with a request for further fact-finding or analysis.
- h) Once the DO makes a final decision on the case, the IPRC will provide the findings, report, and recommended actions to the DUS/O within 10 days. Once the DUS/O has had an opportunity for review, the IPRC will notify both the Complainant and Respondent in writing.

.04 Adjudication

- a) If the DO finds under the standard in Section 1 of this Procedural Handbook that Scientific or Research Misconduct has occurred, the DUS/O will refer the matter to an appropriate manager in the Respondent's reporting structure for consideration of administrative action. In consultation with the NOAA General Counsel, Director of WFMO, and the Department of Commerce Assistant General Counsel for Administration, or their designees, the management official will propose disciplinary action, subject to applicable provisions of Chapter 75 of Title 5 of United States Code, DAO 202-751, other relevant laws or regulations and collective bargaining agreements, as applicable, taking into consideration the following factors:
- The nature of the misconduct;
 - The damage to the research record caused by the actions;
 - The real or potential damage to the public caused by the actions;
 - The damage to NOAA's reputation for quality science;
 - The cooperation of the responsible party in the investigation;
 - Whether the responsible party engaged in retaliation or intimidation of the Complainant or other witnesses;
 - The experience of the responsible party; and
 - Whether the responsible party destroyed or altered evidence.
- b) If the DO finds evidence of waste, fraud, or abuse, he or she will refer the evidence to the Department of Commerce Office of Inspector General for further investigation. If the DO finds

evidence of a violation of criminal law, the evidence will be referred to the Office of Inspector General for investigation and consultation with the Department of Justice. At all times, any employee who believes that he or she has been subject to a prohibited personnel practice for engaging in this process has the right to contact the Office of Inspector General or the U.S. Office of Special Counsel.

Section 6. Contracts and Financial Assistance.

- .01 NOAA adopts, and applies to contracts and financial assistance awards for research, the Federal Policy on Research Misconduct (Federal Policy) issued by the Executive Office of the President's Office of Science and Technology Policy on December 6, 2000 (65 Fed. Reg. 76260 (2000)).

As provided for in the Federal Policy, research misconduct refers to the fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. Research misconduct does not include honest errors or differences of opinion. Organizations that perform research for NOAA under contract or financial assistance must foster an atmosphere conducive to the responsible conduct of sponsored research by safeguarding against and resolving allegations of research misconduct. Organizations also have the primary responsibility to prevent, detect, and investigate allegations of research misconduct and, for this purpose, may rely on their internal policies and procedures, as appropriate, to do so. Expenditure of federal funds on an activity that is determined to be invalid or unreliable because of research misconduct may result in appropriate enforcement action under the award, up to and including award termination and possible suspension or debarment.

If the contractor or financial assistance recipient receives any allegation of scientific or research misconduct related to a NOAA contract or financial assistance, the institution must notify NOAA, and state whether the allegation contains sufficient information to proceed with an inquiry. If so, the institution must submit the allegation to the Grants Officer or Contracting Officer, who will also notify the DUS/O of such allegation. Once the recipient organization has investigated the allegation, it will submit its findings to the Grants Officer or Contracting Officer, who will provide the information to the DUS/O. NOAA may accept the recipient's findings or proceed with its own investigation. The NOAA Grants Officer or Contracting Officer will consult with the Federal Program Officer (FPO) or the Contracting Officer's Technical Representative (COTR), as appropriate, in reviewing and responding to allegations of scientific or research misconduct in connection with a NOAA financial assistance award or contract. In cases of joint or collaborative Federal funding, the Federal agencies funding the award(s) will jointly investigate any allegations of scientific or research misconduct.

Section 7. Employee Appeals of Disciplinary Actions.

If disciplinary action is taken against an employee, the employee may have appeal rights under DAO 202-771, “Administrative Grievance Procedure,” his or her collective bargaining agreement, and statutory appeals processes, such as the through the Merit System Protection Board, as applicable. An employee’s appeal rights will be outlined in the disciplinary decision letter he or she receives.

Section 8. Confidentiality.

Disclosure of the identity of respondents and complainants in Scientific and Research Misconduct proceedings is limited, to the extent possible, to those who need to know, consistent with a thorough, competent, objective, and fair Scientific and Research Misconduct proceeding, and as allowed by law.

Section 9. Records Retention.

The DUS/O will work with the DO and the IPRC to ensure that detailed documentation of the initial receipt of the allegation, each phase of the review process, and final disposition is retained for 7 years (consistent with NARA GRS-1-30) after termination of the case. The NOAA Chief Scientist, in consultation with the DUS/O, will be responsible for providing a publicly available annual report on scientific misconduct cases as noted in Section 10 of the Scientific Integrity Order, NAO 202-735D.

NOAA Framework for Internal Review and Approval of Fundamental Research Communications

to accompany NOAA Administrative Order 202-735D: Scientific Integrity

NOAA Research Council

Issued: 11/08/2016; Effective: 11/08/2016

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i. Purpose

Free and open scientific communication is essential to NOAA's research enterprise and a foundation of NOAA's Scientific Integrity Policy (NAO 202-735D: Scientific Integrity).¹ Additionally, maintaining quality standards and clearly communicating our work to the public is an important responsibility of NOAA and our scientists. To achieve both open scientific communication and the high quality of that communication, the NOAA Research Council is issuing this guidance to the Line and Staff Offices (L/SOs) to develop procedures appropriate to their L/SO for internal review and approval of Fundamental Research Communications (FRC) that are consistent with the framework established here.

These guidelines were developed by the NOAA Research Council per the principles and requirements found in NAO 202-735D (Scientific Integrity); Department of Commerce Administrative Order on Public Communications (DAO 219-1)² and the Information Quality Act.³ These guidelines will be revised as needed. Suggestions and input regarding this framework may be submitted to the NOAA Research Council Executive Secretariat at oar.rc.execsec@noaa.gov.

ii. Scope

ii.1 Applicability

This guidance applies to all NOAA Line and Staff Offices and to all NOAA (Federal) authors and co- authors, as well as NOAA contractors to whom NAO 202-735D applies, regardless of order of authorship. This guidance applies to all Fundamental Research Communications (FRC) as defined in DAO-219-1. The DAO defines an FRC as any communication, regardless of avenue of dissemination, or method of presentation that:

¹ NOAA Administrative Order on Scientific Integrity (202-735D):
http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/202-735-D.html.
The Administrative Order includes the definitions of terms, including a Fundamental Research Communication. See also DAO 219-1 for the complete definition of a Fundamental Research Communication.

² Department of Commerce Administrative Order on Public Communications (219-1):
http://www.osec.doc.gov/opog/dmp/daos/dao219_1.html

³ Information Quality Act (section 515 of Public Law 106–554; H.R. 5658) and the OMB IQA Guidelines (67 FR 8452 (Feb 22, 2002)) <https://www.whitehouse.gov/sites/default/files/omb/fedreg/reproducible2.pdf>

“is intended for, or should reasonably be expected to have, broad distribution outside the U.S. Government,...relates to the Department’s programs, policies, or operations and takes place or is prepared officially⁴ ... and deals with the products of basic or applied research in science or engineering, the results of which ordinarily are published and shared broadly within the scientific community, so long as the communication does not contain information that is proprietary, classified, or restricted by federal statute. If a communication also includes matters of policy, budget, or management, then it is not a Fundamental Research Communication.”

For purposes of this guidance, NOAA further includes within the definition of an FRC the products of basic or applied research in social science and policy research, the results of which ordinarily are published and shared broadly with the scientific community (so long as the communication does not contain information that is proprietary, classified, or restricted by federal statute). These products should be subject to the same review and scientific integrity standards as any other fundamental research communications.⁵

This guidance applies to any initial public release of an FRC regardless of the method of publication or dissemination. This includes, but is not limited to: material prepared for conferences and seminars; audiovisual works, including PowerPoint slides for conference presentations; manuscripts to be submitted to the peer-reviewed scientific literature, including literature review papers; technical reports or memoranda; and web pages with new research content.

II.2 Exceptions

Certain research communications are not covered by this Framework. These include, but are not limited to:

- Continuously updated data and research products, such as publicly disseminated online databases. These products should have their data collection and aggregation protocols

⁴ See DAO 219-1, Section 6.03a for the definition of official communications.

⁵ These products should be subject to the same review and scientific integrity standards as any other fundamental research communications. For example, a research paper published in a peer-reviewed journal discussing the economic impacts of a Catch Shares fishery management program, is an FRC even though the papers will necessarily discuss fisheries management policy. It should be noted that DAO 219-1 only allows for FRCs and Official Communications. Without this exception many social science journal papers would be considered official communications, and would need to be reviewed and cleared through the communications office, which would be inappropriate for this type of work.

and publication processes reviewed at least every 3 to 5 years or whenever there is a significant change in the protocol or process

- Social media products, such as blogs, are covered under the Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0 (SM/W2.0).
- Contributions by NOAA scientists to non-federally led scientific assessments that undergo extensive external peer review, such as the WMO/UNEP Assessment Report on Stratospheric Ozone; National Research Council/National Academy of Sciences Reports; the International Geosphere Biosphere Assessment and Report; and Intergovernmental Panel on Climate Change Assessment Reports.

Questions about applicability of the Review Framework to other research communications should be raised at the Line Office level, and directed to the NOAA Research Council, in consultation with the NOAA Scientific Integrity Officer.

III. Review Framework

III.1 General

The following framework describes the minimum review standard for all NOAA FRCs⁶. NOAA Line offices, except OMAO, (NWS, NMFS, OAR, NOS, and NESDIS) will develop their own internal review and approval policy based on and consistent with this framework. NOAA staff offices and OMAO have the option to develop their own internal review policy for FRCs, or to submit each of its FRC's to the Research Council Executive Secretariat, who will then assign each FRC to an appropriate line office to conduct the review.

Due to the iterative and collaborative nature of science, the extent of internal review required by the L/SO should give due consideration to the intended audience, the novelty and complexity of the science to be reviewed; the avenue of publication; and the extent of prior peer review. L/SO procedures may wish to implement expedited review processes for some types of FRC. For example, conference presentations may only require general content review by the author's immediate supervisor. Conversely, high profile and potentially controversial papers intended for external peer reviewed journals may require a more detailed internal technical review.

Internal review and approval must be:

⁶ The OMB Information Quality Act Guidelines define "Influential Scientific Information" (ISI) as information that agency reasonably can determine will have or does have a 'clear and substantial' impact on important public policies or private sector decisions. This type of FRC is subject to more stringent peer review and reporting requirements that are beyond the scope of this guidance. For more information about IQA please see appendix 2.

- Conducted by the author's head of operating unit or their designee for review⁷
- Designed to confirm that the communication meets the definition of an FRC.
- Appropriate for the intended audience and the nature of the FRC. At the discretion of the L/SO certain FRC's (such as presentations prepared for discussion at a scientific conference) may be subject to general content review and approval.
- Constructed to note any instances that require the use of a disclaimer (see section Using Disclaimers below).
- Designed to improve the scientific quality of the work by highlighting any inconsistencies or weaknesses in data, methodology, or findings presented.
- Technical reviews will be conducted by staff that are knowledgeable in the scientific area(s) being addressed in the work.
- Consistent with NAO 202-735D on Scientific Integrity.
- Constructed to ensure that the FRC meets the Information Quality Act standards of utility, integrity and objectivity (see Appendix 2).

Internal review must not:

- Be used to inhibit or excessively delay the dissemination of scientifically meritorious FRCs, as proscribed in NAO 202-735D, Section 7.03.
- Prohibit NOAA scientists from freely expressing their opinions, scientific or otherwise in a communication. To protect open and free communication, the framework provides an approved disclaimer (see section III.2 Using Disclaimers below) for use by NOAA authors when expressing their opinions in an FRC. Additionally, NOAA authors have the ability to communicate as private citizens, subject to provisions in DAO 219-1 governing Non-Official Communications of Interest⁸.

⁷ DAO 219-1 requires that FRC be submitted to the employee's head of operating unit, or their designee for review.

⁸ Non-Official Communications of Interest: DAO219-1 requires advance notice and review of materials for publications and presentations by employees that are prepared non-officially and without the use of government resources, if the subject matter of the communication is within the scope of NOAA's programs, policies or operations. Advance notification should be given to the employee's head of operating unit, or their designee and any relevant materials should be submitted. This review is not for approval or disapproval, and the agency may not prohibit the publication. The review is only for agency awareness, and to ensure that the publications do not contain confidential information, violate ethics rules or improperly attribute personal views of the employee to NOAA or the Department. A disclaimer is required if the publications could reasonably be construed as representing the views of the Department, NOAA or an operating unit.

- Exceed 30 calendar days from the time the FRC is submitted by the author to the appropriate reviewing official. Reviews should be completed in less time whenever possible. Furthermore, Line Offices may wish to implement an expedited review process for some publication types such as presentation slides for conferences. Conversely, some publications may require more than 30 calendar days to complete the review process (e.g. due to the complexity or length of the document). In these cases the reviewing official must provide a written explanation to the author within 10 calendar days of receipt of the FRC for review, along with an estimate of the time needed to complete the review. If unavoidable delays arise after the initial ten days the author must be notified and provided a written explanation for the delay as soon as possible. If delays are viewed to be excessive this may be addressed through the LO procedures for redress described below (Section III.4).

III.2 Using Disclaimers

Detailed guidance regarding the use of disclaimers is the purview of L/SOs and should be clearly articulated in L/SO policy on internal review. Use of a disclaimer does not exempt an FRC from internal review.

At a minimum, Departmental policy requires the use of a disclaimer when the scientific conclusions and viewpoints presented in a FRC could reasonably be construed as representing the view of NOAA or the Department when they do not.⁹ NOAA policy requires the use of a disclaimer when a FRC includes personal viewpoints, for example, if the material contains policy or management matters that extend beyond the scientific findings to incorporate the author's expert or personal opinions.¹⁰

When appropriate, and consistent with L/SO policy, NOAA authors should use the following disclaimer in their FRCs:

The scientific results and conclusions, as well as any views or opinions expressed herein, are those of the author(s) and do not necessarily reflect the views of NOAA or the Department of Commerce.

⁹ See DAO 219-1, Section 7.03.

¹⁰ See NAO 202-735D, Section 4.06.

III.3 Additional Guidance

III.3.1 Research Council Responsibilities

The Council is responsible for the periodic review and updating of this policy. The Council is responsible for overseeing the effectiveness and implementation of these guidelines by the L/SOs.

III.3.1 Line/Staff Office Responsibilities

Each NOAA line office is required to develop and document procedures for review and approval of Fundamental Research Communications consistent with this framework. If a staff office chooses to develop its own procedures they must be consistent with this framework. The L/SO procedures must include *time limits for review and approval*, as well as *procedures for redress* in cases where there is a dispute between an author and a reviewer that is consistent with the general timelines given here. L/SOs are required to present their procedures to the Research Council, through their Council representative, within 6 months of the approval of this framework and must make the procedures easily available and understandable to their staff.

III.3.2 Line and staff office policies:

- Line and staff office policies must be consistent with this guidance, DAO 219-1, and the Information Quality Act.
- The extent of peer review required should give due consideration to the novelty, and complexity of the subject matter to be reviewed; the avenue of publication; the extent of prior peer review and the relevance of the information to decision making. Line office policies may provide for varying levels of review based on FRC type.
- Line and Staff office policies must be clear on roles and responsibilities timelines, for authors, approving officials, and any others involved in the review and approval of an FRC. This is particularly important if L/SOs provide varying levels of review for different types of FRCs or if the designation of responsibility varies by FRC type.
- Line and staff office policies should clearly outline redress and dispute resolution procedures for the FRC Review process. Responsibilities for authors, approving officials and others involved should be clearly described.
- DAO 219-1 requires that the FRC be submitted to the employee's head of operating unit, or their designee for review. L/SO policies may specify different designees for different FRC types.
- Peer reviewers may include both federal and non-federal employees. However, only federal employees may make recommendations regarding the nature of the communication (e.g., whether it is an FRC and if it contains policy or budget matters of which the identified approving official should be notified)..
- A review should determine if a disclaimer should be used.
- Multiple reviews are not required for cases where a single FRC is being presented in multiple venues.

- The review process is only required to be completed by the office of one NOAA author, with notification to offices of any other NOAA authors. If the FRC is undergoing review by another Federal agency, a NOAA review for policy and disclaimer concerns is still required. However the technical review may be completed by the alternate agency, at the discretion of the NOAA approving official

III.3.3 Approving Official or Designee Responsibilities

- The approving official (the Head of Unit – Lab/Program/Office Director or their designee) will assign one or more individuals, sufficiently knowledgeable in the relevant field, to provide technical review (if required) for an FRC. A chair or coordinator can be used when more than one reviewer is involved, as may be the case with complex or potentially controversial FRCs.
- The approving official may assign the technical review to themselves, if they have sufficient background in the scientific subject of the work, and if the novelty, complexity, potential controversy and significance of the work do not warrant broader review.
- The approving official will approve or disapprove FRC for release based on recommendations from the reviewer(s).
- The approving official will determine if a disclaimer is required.
- The approving official will not alter a FRC without the consent of the author(s).

III.3.4 Reviewer/Review Coordinator Responsibilities

- The review will be conducted in a timely fashion, within the 30 calendar day limit to complete the review and approval process.
- Reviewers will provide comments that are objective and consistent with the principles in NAO 202-735D.
- Reviewers can make recommendations to the author to improve the quality of the FRC.
- The Chair or the Coordinator, if applicable, will make recommendations to the approving official regarding approval or disapproval and the need for a disclaimer.

III.3.5 Author Responsibilities

- Authors must submit their pre-publication FRC to the approving official (the Head of Unit or his/her designee) for internal review and approval *prior to first submission* to the journal or other outlet. This includes work where the NOAA employee is not a primary author.
- FRCs that are submitted to a journal and then rejected or sent back by the journal for revision, do not need to go through a second round of approval before they are resubmitted to the journal unless the data, findings, or conclusions have changed significantly.
- Authors must use a disclaimer in the appropriate situations as determined by the approving official.

- Authors in organizational units not covered by an approved line or staff office policy should submit their FRC to the NOAA Research Council, Executive Secretariat. The Research Council Executive Secretariat will then assign the FRC to an appropriate L/SO to conduct the review under its policy.

iv. **Procedures for Redress**

While the NOAA Internal Review process is required by DAO 219-1, the Information Quality Act, and NAO 202-735D, it must not be used as a basis to prohibit an author from publishing. L/SOs must, therefore, have clear written procedures in place to guide their staff in cases of disagreement during the review/approval process. These procedures should be consistent with DAO 219-1 and this framework.

In cases where there is a suspected violation of the NOAA Scientific Integrity Policy, the parties should follow the guidelines established in the Procedural Handbook¹¹ for dealing with allegations of misconduct that accompanies the Scientific Integrity Policy (NAO202-735D).

v. **Tracking and Reporting of Scientific Publications**

It is important to keep senior staff and public affairs informed about important scientific papers prior to their release. As such, L/SOs will include a tracking and reporting component to their Internal Peer Review Guidance for manuscripts intended for the External Peer Reviewed Literature as well as for other significant Technical Memoranda or Scientific Reports.

a. **Author Affiliation and Attribution**

Using clear, consistent author affiliations enables NOAA to recognize and track research publications from the various laboratories and offices. In turn, this enables NOAA to assess the relevance and impact of its research portfolio. The following examples

¹¹ [Procedural Handbook for dealing with allegations of misconduct:
http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/Procedural_Handbook_NAO_202-735D_31Jan_2012.pdf](http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_202/Procedural_Handbook_NAO_202-735D_31Jan_2012.pdf)

For FTE (NOAA) employees:

[Division]

[Center, Office or Laboratory] (e.g., Pacific Marine Environmental Laboratory)

[Line/Staff Office] (e.g. Oceanic and Atmospheric Research)

National Oceanic and Atmospheric Administration [street address, city, ZIP]

USA

Contractors should not use NOAA as primary affiliation. An example:

[Author(s)]

[Contracting Firm]

Under contract to [Center, Office or Laboratory]

[Line/Staff Office]

National Oceanic and Atmospheric Administration

[street address, city, ZIP]

USA

Cooperative Institute and other grantees should not use NOAA as primary affiliation. An example:

[Author(s)]

[University or home institution]

[Cooperative Institute or other granting organization] (e.g., Sea Grant)

Award number

Visiting scientists should not use NOAA as primary affiliation. An example:

[Author(s)]

[Home institution]

Visiting Scientist at [Center, Office or Laboratory]

[Line/Staff Office]

National Oceanic and Atmospheric Administration

[Street address, city, ZIP]

USA

Each author is responsible for ensuring that this policy is followed for his or her publication, including checking that the correct affiliation is included in final publication proofs.

If a particular external publication does not permit the format above due to space constraints or other limitations, acronyms are permitted. The name of the smallest organizational unit should be written in full. However, NOAA and line office affiliations are not to be omitted. Following are acceptable abbreviations of the affiliation:

NOAA, [acronym for line/staff office], [acronym for laboratory], [full name of division or sub-office], [city, state, and zip code of author]

NOAA, [acronym for line/staff office], [full name of laboratory or office], [city, state, and zip code of author]

VI. Effective Date/Revisions

This guidance will be in effect once approved by the NOAA Executive Council. The guidance may be reviewed/updated at the request of the NOAA Research Council Chair.

Appendix 1: Relevant Policy & Citations

NAO 202-735D: Scientific Integrity

4.06 - NOAA scientists are free to present viewpoints, for example about policy or management matters, that extend beyond their scientific findings to incorporate their expert or personal opinions, but in doing so they must make clear that they are presenting their individual opinions—not the views of the Department of Commerce or NOAA. In such cases, NOAA personnel may also note their NOAA affiliation as part of their biographical information, provided that their NOAA affiliation is noted as one of several biographical details, or, if the information is being published in a scientific or technical journal, their NOAA affiliation may be listed with an appropriate disclaimer. Appropriate disclaimers for use by NOAA scientists when expressing such opinions will be posted to the Scientific Integrity Commons website.

5.2.e - [NOAA will...] Ensure that data and research used to support policy decisions undergo independent peer review by qualified experts, where feasible, appropriate, and consistent with the law and NOAA's Information Quality and Peer Review Guidelines. In cases where a full external peer review is appropriate but not possible (e.g., emergencies where lives and property are at risk), NOAA staff may use modified peer review processes as necessary for timely decision-making and release of data and information. In these cases, NOAA will explicitly state that the information has not been peer reviewed.

- Decisions to approve or not approve a Fundamental Research Communication must be based only on whether the work is scientifically meritorious: specifically, whether the methods used are clear and appropriate; the presentation of results and conclusions is impartial; and there are no apparent, actual, or potential conflicts of interest. Consistent with DAO 219-1, the approval or non-approval of a Fundamental Research Communication cannot be based on the policy, budget, or management implications of the research. Differences of opinion will be resolved by through the NOAA-wide framework for review and approval of Fundamental Research Communications consistent with DAO 219-1.

- The NOAA Research Council will develop a NOAA-wide framework for peer review and approval of Fundamental Research Communications consistent with the criteria in 7.03. Each Line Office will develop and document procedures for review and approval consistent with the Research Council's framework. The procedures must include time limits for review and approval, and procedures for redress if the time limits are not met. The framework and procedures will be posted on the Scientific Integrity Commons website.

DAO 219-1: Public Communications

7.01 - Approval of Materials. Based on the operating unit's internal procedures, all written and audiovisual materials that are, or are prepared in connection with, a Fundamental Research Communication, must be submitted by the researcher, before the communication occurs, to the head of the operating unit, or his or her designee(s), for approval in a timely manner. These procedures may not permit approval or non- approval to be based on the policy, budget, or management implications of the research. The head of the operating unit, or his or her designee(s), is responsible for ensuring that, if appropriate, advance notice is provided to that unit's public affairs office.

7.03 - Scientific Conclusions. Given the nature of the scientific process, the role of the scientific community is to draw scientific conclusions based on available data. Department researchers may draw scientific conclusions based on research related to their jobs and may, subject to Section 7.01 with respect to any written or audiovisual materials, communicate those conclusions to the public and the media in a Fundamental Research Communication. However, if such a conclusion could reasonably be construed as representing the view of the Department or an operating unit when it does not, then the researcher must make clear that he or she is presenting his or her individual conclusion and not the views of the Department or an operating unit.

Appendix 2: Information Quality Act Summary

Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106-554, aka the Data Quality Act or Information Quality Act) directed the Office of Management and Budget (OMB) to issue government-wide guidelines that “provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by federal agencies.” (67 FR 8452 (Feb 22, 2002))

The guidelines apply to a wide variety of government information products and all types of media, including printed, electronic, broadcast, or other. The guidelines define “information” as “any communication or representation of knowledge such as facts or data, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual forms.” For example, this definition includes information that an agency disseminates from a web page. The guidelines define “dissemination” as “agency initiated or sponsored distribution of information to the public.” Explicitly not included within this term is distribution limited to “government employees or agency contractors or grantees; intra- or inter-agency use or sharing of government information; and responses to requests for agency records under the Freedom of Information Act, the Privacy Act, the Federal Advisory Committee Act or other similar law.” It also does not include distribution limited to correspondence with individuals, press releases, archival records, public filings, subpoenas, or adjudicative processes.

The IQA gives agencies a fair bit of flexibility in developing their own guidelines, but it does require agencies to: “develop a process for reviewing the quality (including the objectivity, utility, and integrity) of information before it is disseminated.” This pre-dissemination review is to “enable the agency to substantiate the quality of the information it has disseminated through documentation or other means appropriate to the information.” The IQA defines the components of quality as utility, integrity and objectivity. Together these standards form the basic review requirements of the IQA.

Utility is the usefulness of the information to its intended users. “Useful” means that the content of the information is helpful, beneficial, or serviceable to its intended users, or that the information supports the usefulness of other disseminated information by making it more accessible or easier to understand, obtain, or use.

Objectivity covers both presentation and substance, requiring that the Information is presented in an accurate, clear, complete, and unbiased manner, and in proper context. The substance of the information must also be accurate, reliable, and unbiased; in the scientific, financial, or statistical context. Original and supporting data are generated and

the analytical results are developed using sound, commonly accepted scientific and research methods.

Integrity refers to the security of information—protection of the information from unauthorized access or revision, to ensure that the information is not compromised through corruption or falsification.

The OMB Information Quality Act Guidelines further define “Influential Scientific Information” (ISI) as information that agency reasonably can determine will have or does have a ‘clear and substantial’ impact on important public policies or private sector decisions. This type of publication is subject to more stringent peer review and reporting requirements, and is also held to a higher standard of reproducibility and transparency. These standards are further elaborated in the OMB Peer Review Bulletin¹² (PRB) that was published subsequent to the IQA Guidelines.

The Peer Review Bulletin further defines the peer review requirements for ISA and also defines Highly Influential Scientific Assessments (HISA). HISA are a subset of influential scientific information. A HISA is

a scientific assessment that: (i) has a potential impact of more than \$500 million in any one year on either the public or private sector (the economic test); or (ii) is novel, controversial, or precedent setting, or of significant interagency interest (the narrative test). HISAs have even more stringent peer review and documentation requirement requirements. For more information on the specific requirement please refer to the NOAA Information Quality Guidelines found here:

http://www.cio.noaa.gov/services_programs/info_quality.html

Both ISI and HISA require that a peer review plan be developed and posted on the agency’s website¹³. The determination as to whether an information product is ISI or a HISA should be made early in the process of developing the information so that a peer-review plan can be developed and posted well in advance of the release of the information.

Additionally, the OMB IQA guidelines include an important exception to the review requirements:

“an agency does not “initiate” the dissemination of information when a federally employed scientist or federal grantee or contractor publishes and communicates his or her research findings in the same manner as his or her academic colleagues, even if the federal agency retains ownership or other intellectual property rights because the federal government paid for the research. To avoid confusion

¹² http://www.cio.noaa.gov/services_programs/pdfs/OMB_Peer_Review_Bulletin_m05-03.pdf

¹³ NOAA Peer Review Plans are posted here:
http://www.cio.noaa.gov/services_programs/prplans/PRsummaries.html

regarding whether the agency agrees with the information (and is therefore disseminating it through the employee or grantee), the researcher should include an appropriate disclaimer in the publication or speech to the effect that the “views are mine, and do not necessarily reflect the view” of the agency.

From this exception, publications in peer reviewed journals and presentations at scientific conferences are not subject to IQA review if they include a disclaimer. ISI and HISAs do not qualify for this exemption. However, it is important to note that DAO-219-1 requires an internal review of all Fundamental Research Communications. So even though they are exempt from IQA review, these publications are still subject to review under the DAO.



December 16, 2011

MEMORANDUM FOR ALL CHIEF COUNSELS AND GENERAL COUNSELS

FROM: Cameron F. Kerry

SUBJECT: Implementation of Administration Policy on Scientific Integrity

On December 17, 2010, Dr. John Holdren, Director of the White House Office of Science and Technology Policy (OSTP), issued an Administration policy on scientific integrity (OSTP memo), implementing a Presidential Memorandum of March 9, 2009. The OSTP memo requires executive Departments and agencies (agencies) to develop scientific integrity policies that implement four broad principles: strengthen the foundations of scientific integrity; enhance openness and transparency in the communication of government science; guide the operation of federal advisory committees tasked with giving scientific advice, in line with a set of five specified criteria; and promote the professional development of government scientists and engineers.

On June 15, 2011, I issued a memorandum adopting these directives as the policy of the Department of Commerce (Department) so as to ensure the highest integrity of science and scientific products developed and utilized by the Department and its bureaus. This updated memorandum supersedes the June 15 memorandum.

Toward the fulfillment of the directives in the OSTP memo, the Department is committed to:

- Ensuring a culture of scientific integrity.
- Protecting scientific and technical findings from suppression or alteration by political officials.
- Selecting candidates for scientific positions primarily on the basis of their scientific and technical knowledge, credentials, experience, and integrity.
- Ensuring that data and research used to support policy decisions undergoes independent peer review by qualified experts, where appropriate, feasible, and consistent with the law.
- Holding to all relevant standards governing conflicts of interest.
- Adopting and abiding by appropriate whistleblower protections.
- Facilitating the free flow of scientific and technological information, consistent with

privacy and classification standards.

- Expanding and promoting access to scientific and technological information by making the information available online in open formats, and where appropriate, including data and models underlying regulatory proposals and policy decision.

In general, to carry out these important policies, the Department will defer to each bureau with an interest in science to determine whether it is necessary to develop bureau-specific implementation consistent with the Administration's guidance as set forth in the OSTP memo. The National Oceanic and Atmospheric Administration (NOAA) and National Institute for Standards and Technology (NIST) are adopting such policies. This memorandum encourages other bureaus to continue to review their work in light of the policy adopted here, Department Administrative Order (DAO) 219-1, and Federal ethics laws.

In reviewing Department orders and policies to ensure their conformance with the Administration's new guidance, we have specifically identified three areas of particular interest. The first is associated with the public communication of fundamental research; the second relates to the professional development of government scientists; and the third relates to Federal Advisory Committees. These issues are more fully developed here to provide guidance that covers all Commerce bureaus.

i. Public Communications

Section 2 of the OSTP memo requires agencies to implement policies that allow federal scientists to speak with the media and the public (media) on scientific and technological matters with the "appropriate coordination" of their supervisors and their respective public affairs offices. Department of Commerce Administrative Order (DAO) 219-1 addresses Commerce policy for public communications of science (referred to as "fundamental research communications"). This memorandum confirms that DAO 219-1 allows scientists to engage in oral fundamental research communications (based on their official work) with the media and the public without notification or prior approval to their supervisor or to the Office of Public Affairs. Electronic communications with the media related to fundamental research that are the equivalent of a dialogue are considered to be oral communications; thus, prior approval is not required for a scientist to engage in online discussions or email with the media about fundamental research, subject to restrictions on protected nonpublic information as set forth in DAO 219-1. In accordance with DAO 219-1 and consistent with the OSTP memo, in no circumstance may a public affairs officer ask or direct a Department employee to alter scientific findings.

ii. Professional Development

Section 4 of the OSTP memo requires agencies to establish policies that promote, as permitted

by law, the professional development of Government scientists and engineers, "including removing barriers for serving as officers or on governing boards of [non-profit professional] societies." The Department of Commerce supports such service. The Department's current policy encourages participation in an official capacity in non-fiduciary leadership positions, such as government liaisons, or in service with standard-setting bodies as authorized by statute. Employees are also permitted to serve in fiduciary leadership positions in a personal capacity without prior approval, as long as they comply with restrictions in the Standards of Conduct. Service in an official capacity in fiduciary positions (except standard-setting bodies) is currently not permitted under 18 U.S.C. § 208, a federal criminal statute.

The Department of Commerce supports individual participation and leadership in scientific and professional organizations to the extent consistent with applicable laws and regulations and Department policy. The Department also allows Government scientists and engineers to receive honors and awards for their research and discoveries with the goal of minimizing, to the extent practicable, disparities in the potential for private-sector and public-sector scientists and engineers to accrue the professional benefits of such honors or awards.

The Office of Government Ethics (OGE) has proposed a draft rule that would provide for an exemption to 18 U.S.C. § 208, allowing government employees to serve in an official capacity on the boards of directors, and as officers of non-profit organizations, including scientific organizations, professional societies, and similar bodies (*Federal Register* 76:85, 3 May 2011, p. 4816). If and when this rule becomes final, the Office of the Assistant General Counsel for Administration will work with each of you to develop implementing guidance. In the event that the OGE rule is not promulgated promptly, the Department will re-consider its current practice not to issue conflict of interest waivers under 18 U.S.C. § 208(b).

iii. Federal Advisory Committees

The establishment and use of Federal Advisory Committees (FACs) tasked with giving scientific advice will follow the procedures established by the Federal Advisory Committee Act, consistent with the Administration's guidance on lobbyists serving on FACs, and will be in accordance with the guidelines established in the OSTP memo. Accordingly, the Department will:

- Ensure that the recruitment process for new FAC members is transparent.
- Announce FAC member vacancies widely through announcements in the *Federal Register* and on agency websites, with an invitation for the public to recommend individuals for consideration.
- Make widely available to the public the pertinent professional biographical

information (including current and past professional affiliations and a clear illustration of their qualifications for serving on the committee) for appointed committee members, subject to the Privacy Act and other statutory/regulatory considerations regarding the dissemination of information about individuals. Such information should clearly illustrate the individuals' qualifications for serving on the committee.

- Select members to serve on a scientific or technical FAC based on expertise, knowledge, and contribution to the relevant subject area, and may consider members' availability and ability to serve, diversity among members of the FAC, and members' ability to work effectively on advisory committee. The Committee membership should be fairly balanced in terms of points of view represented with respect to the functions to be performed by the FAC.
- Make all conflict-of-interest waivers granted to committee members publicly available, except where prohibited by law.
- Except where explicitly stated in a prior agreement, treat all reports, recommendations, and products produced by the FAC as solely the findings of such committees rather than of the Government, and thus not subject to intra- or inter-agency revision.